

REMARKS

Entry of the foregoing and reexamination and reconsideration of the above-captioned application, pursuant to and consistent with 37 C.F.R. § 1.112 are respectfully requested.

Claims 1 and 12 were objected to because of certain informalities. Claim 1 was objected to because of the syntax of the phrase "An hydrophobic." An appropriate correction has been made. The Examiner also requested a similar amendment to the Abstract. Accordingly, the Abstract has been substituted with a new version, on a separate sheet, including that change. In addition, the numeral 12 in claim 12 was originally presented as 12.2. An appropriate correction in the number has been made.

Claims 9, 15 and 26 were rejected pursuant to 35 U.S.C. § 112 2nd paragraph as allegedly being indefinite. In claim 9, the term "said additive is selected from" was duplicative and has been corrected. In claim 15, the phrase "of the order of" has been deleted and replaced with the term "about." Claim 26 has been canceled.

Claims 24-32 stand rejected pursuant to 35 U.S.C. § 102(b) as alleged being anticipated by JP 2-12059, hereinafter referred to as "JP '059." Applicants respectfully traverse. The Japanese abstract does not teach a buffer system as claimed in claims 24 or 25 as amended, having a pH of 9-11. Instead it is drawn to a buffer without specifying a pH range. Indeed, the abstract concerns the analysis of a derivative of an amino acid known as a neurotransmitter, not one of the proteins currently claimed. Accordingly, the ground that this rejection has been rendered moot by the amendment.

Claims 1-3, 7, 8, 12, 13, 16-19, 21, 23-25 and 33 have been rejected pursuant to 35 U.S.C. § 102(b) as alleged being anticipated by Lauer et al. However, claim 1 and 21 have been amended to include the recitations of prior claim 6 relating to specified serum proteins. There is no mention of serum proteins in Lauer and accordingly, Lauer cannot anticipate these claims as amended.

Claims 20-24 have been rejected pursuant to 35 U.S.C. § 102(b) as alleged being anticipated by Ogawa et al. U.S. Patent No. 4,769,408. Applicants respectfully traverse. Ogawa describes aqueous gels that cannot be used as running buffers such as those claimed. Moreover, as amended, the claims in question recite a buffer solution, not a gel. Accordingly, the rejection is rendered moot by the amendments.

Claims 20-26 and 33 were also rejected pursuant to 35 U.S.C. § 102(b) as allegedly being anticipated by Bellon et al. U.S. Patent No. 5,928,484. Again, applicants respectfully traverse. As is true with Ogawa, Bellon describes aqueous gels. Alternatively, it describes biological samples which are distinct from the buffer system as now claimed. The present invention concerns running buffers which are not in the form of a gel and also now claims buffers different from biological samples. In addition, Bellon et al. also fails to teach or suggest the pH ranges claimed. Accordingly, the claims are not anticipated as the rejection has been rendered moot.

Claims 1-5, 7, 8, 12, 13, 16-19, 21, 23-25, and 33 stand rejected pursuant to 35 U.S.C. § 102(b) as allegedly being anticipated by Keo et al. U.S. Patent No. 5,599,433. Again, as this rejection will be applied to the claims as amended, applicants respectfully traverse. Keo does not teach or suggest

the protein constituents formerly found in claim 6 and therefore, cannot anticipate claims 1, 21, or the claims that depend therefrom. Moreover, Keo does not teach or suggest the additives formerly found in claim 26 which has been combined with claims 24 and 25.

Claim 24 is rejected pursuant to 35 U.S.C. § 102(b) as alleged being anticipated by Hjerten et al. U.S. Patent No. 5,938,930. Again, applicants respectfully traverse. The reference does not teach the additives which were formerly recited in claim 26 which has now been combined with claim 24. Moreover, the Examiner acknowledged that the reference did not teach use of a material having both a hydrophobic portion and an anionic pole. Thus it could not teach or work by the type of hydrophobic interaction that characterizes embodiments of the present invention. The absence of an anionic polar material also precludes the mechanisms of the present invention. In addition, Hjerten et al. also fails to teach or suggest the pH range claimed. Therefore the reference cannot anticipate the claim as amended.

Claims 24-33 have been rejected pursuant to 35 U.S.C. § 103(a) as allegedly being unpatentable over Bellon et al. U.S. Patent No. 5,928,484. As noted previously, the buffer gels of Bellon et al. cannot be used in the inventive process as a running buffer. Furthermore, the biological samples as cited in Bellon are not similar to the buffer system used in accordance with the invention. Bellon concerns an analysis of Lp(a) and fails to teach the pH range of the running buffer system of the present invention.

Claims 1-8, 12, 13, 16-21, 23-25, and 33 have been rejected pursuant to 35 U.S.C. § 103(a) as allegedly being

unpatentable over Lauer et al. when taken in view of Alter et al. U.S. Patent No. 5,753,094. As that rejection would be applied to the amended claims, applicants respectfully traverse. First, applicant questions whether or not the Patent Office has provided adequate citation to where, within the references, or in the general skill in the art, one of ordinary skill in the art would look to combine Lauer with Alter. Indeed, from the discussion of the references contained in the Official Action, one has reason to question whether or not these references are combinable.

Lauer et al. nowhere suggests that CZE can be used for analyzing the types of samples now claimed such as albumin and globulin in a buffered system such as that claimed. Alter et al., on the other hand, teaches the use of a borate storage buffer or diluent buffer. Indeed, it is entitled "borate storage buffer . . .". There is no teaching, suggestion or motivation to substitute the buffering system of Alter with that of Lauer et al. or vice versa, nor is there anything teaching or suggesting, on the current record, that proper separation of the types of protein substituants claimed could be effectuated by this combination. Moreover, the storage borate buffers of Alter have pH conditions adjusted to between about 6 and 8, more preferably about 7.

There is no teaching or suggestion to use the types of pH's used in accordance with preferred aspects of the present invention, and in particular, as reflected in, for example, claims 7 and 21. As noted above, there would be no reason to combine the teachings of these two documents given their disparities and the combination would not result in the present invention.

Applicants respectfully submit that the present rejection amounts to nothing more than a hindsight reconstruction of applicants' invention. The patent has found the various elements of the claimed invention in discreet references and opined that, because that they all relate to the same separation field, they are completely interchangeable. However, hindsight is not a substitute for teaching, suggestion, or motivation to combine these disparate teachings.

Claim 22 stands rejected pursuant to 35 U.S.C. § 103(a) over Lauer et al. and Alter et al. further Ohmura et al. U.S. Patent No. 5,521,287. It should be noted, however, that the combination does not overcome the deficiencies of the two above references and that its subject matter is related to the technical field which is different from the field of the present invention as it does not relate to the types of methods described or the use of running buffer solutions. Moreover, the ionic strength adjuster is used in Ohmura to precipitate albumin. The aim of the invention is to keep the proteins in solution since precipitated proteins cannot be analyzed using such a process. Since the precipitate is not in solution, it is both non-combinable with the other references and could not provide the present process.

Claims 24-33 stand rejected pursuant to 35 U.S.C. § 103(a) as allegedly being unpatentable over Hjerten et al. U.S. Patent No. 5,938,930. As that rejection would be applied to the claims as amended, applicants respectfully traverse. The reference does not teach the buffering system of amended claim 24 or 25. The buffering system taught is suitable for reverse-phase electrochromatography and fails to teach or even

suggest the pH range and the condition claimed. Accordingly, the rejection should be withdrawn.

Finally, applicants acknowledge the provisional obviousness type double patenting rejection identified by the Examiner. However, applicants will defray any comments regarding same until one or the other sets of claims has been allowed.

If the Examiner has any questions with regard to the foregoing, he should feel free to contact the undersigned, at his convenience, at (908) 654-5000. Furthermore, should any fee be due and owing in this regard, the Examiner should charge Deposit Account No. 12-1095 therefor.

From the foregoing further and favorable action in the form of a Notice of Allowance is believed to be next in order and such action is earnestly solicited.

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Respectfully submitted,

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